

REMARKS/ARGUMENTS

Favorable reconsideration of this Application, as presently amended and in light of the following discussion, is respectfully requested.

This Amendment is in response to the Office Action mailed on May 5, 2005. Claims 1-16 are pending in the Application, Claims 1-9 and 12 stand rejected, and Claims 10, 11 and 13 stand objected to for being in improper multiple dependant form. Claim 12 was indicated as allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, second paragraph. Claims 1-13 are amended and new Claims 14-16 are added by the present Amendment.

In the outstanding Office Action, the drawings were objected to for lacking a prior art legend in FIGS. 1, 2, and 6; Claims 10, 11, 13 were objected to under 37 CFR § 1.75(c) as being in improper form; Claims 1-9 and 12 were rejected under 35 U.S.C. § 112, second paragraph; and Claims 1-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yokogawa et al. (U.S. Patent No. 6,083,084, hereinafter “Yokogawa”) in view of Iwabuchi (6,454,636 B1).

Applicants thank Examiner Anthony Ojini for the courtesy of an interview extended to Applicants’ representative on May 27, 2005. During the interview, amendments to the claims as herein presented were proposed, and arguments as hereinafter developed were presented.

It was explained during the personal interview that the combination of Yokogawa and Iwabuchi cannot support a *prima facie* case of obviousness of the inventions in this application because Yokogawa does not teach or disclose a hydraulic jet used to remove a layer of air from the circumferential surface of the grinding wheel as recited in Claims 1 and 5. In addition, Yokogawa, a reference disclosing an air-cooling system, does not teach or disclose the mist collecting step recited in Claim 1 and the recovering port mounted on the grinding wheel guard configured to collect a mist of coolant blown by the hydraulic jet as

recited in Claim 5. It was further explained that Iwabuchi does not remedy neither of the above-noted deficiencies of Yokogawa.

Although an agreement with respect to the claims was not reached during the personal interview, Examiner Ojini noted in the interview summary (form PTOL-413) that “Applicants’ representative presented arguments highlighting the advantageous features of the invention, including a hydraulic jet substantially parallel to the circumferential surface of the grinding wheel. Examiner agreed Yokogawa et al. (6,083,084) does not teach this feature. A further search will be conducted upon filing of an amendment.”

Claims 1 and 5 are amended herein to better recite the orientation of the hydraulic jet with respect to the circumferential surface of the grinding wheel. Based at least on the foregoing discussion, the present amendments to the claims, and the results of the personal interview, Applicants respectfully submit that the above-summarized obviousness rejection is now moot. Its withdrawal is respectfully requested.

As to the outstanding objection to Applicants’ drawings, Applicants have submitted herein replacements for FIGS. 1, 2, and 6, correcting the informalities noted by the Examiner and respectfully request reconsideration of the objection thereto. Applicants respectfully submit that no new matter has been added to the above-referenced application by the replacement drawings submitted.

As to the objection to Claims 10, 11, and 13 under 37 C.F.R. §1.75(c) for being in improper multiple dependent form, Applicants have amended the dependency of Claims 10, 11, and 13 and respectfully request reconsideration of the objections of those claims under 37 C.F.R. §1.75(c).

As to the rejection of Claims 1-9 and 12 under 35 U.S.C. §112, second paragraph, Applicants note with appreciation the time taken by the Examiner to identify specific areas needing revisions. Applicants submit that the claim amendments enclosed herein have

overcome these rejections under 35 U.S.C. §112 and respectfully request their withdrawal. It is believed that all pending claims are definite and no further rejection on that basis is anticipated. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work with the Examiner in a joint effort to derive mutually acceptable language.

In order to correct minor grammatical informalities, Applicants submitted herein amendments to several paragraphs in the specification. Entry of those amendments is respectfully requested.

Finally, Applicants have submitted new Claims 14-16, which find non-limiting support on the subject matter disclosed in Applicants' specification, originally filed figures, and originally filed claims. Therefore, new Claims 14-16 are not believed to raise a question of new matter.¹ New Claims 14 recites a grinding machine, comprising, among other features, a grinding wheel mounted on a wheel slide, a workpiece holder configured to support a workpiece to be grinded by the grinding wheel, and means for cooling the grinding wheel and the workpiece with a coolant. Claim 15 recites that the means for cooling of Claim 14 comprises means for recirculating the coolant. Claim 16 recites that the means for cooling of Claim 14 comprises means for cutting off an air layer at a circumferential grinding surface of said grinding wheel.

Under the provisions of 35 U.S.C. § 112, sixth paragraph and the examining procedures outlined in MPEP §§ 2181-2183, Applicants respectfully submit that neither Yokogawa nor Iwabuchi teach or disclose a cooling system that is the same as the ones structurally disclosed in Applicants' specification to perform the recited cooling function, or equivalents thereof. This is so because the cooling systems disclosed in these references (1) do not perform an identical function substantially the same way to produce substantially the

¹ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

same results as the cap of the present invention;² (2) would not be recognized by those of ordinary skill in the art as being interchangeable to the ones disclosed in Applicants' specification;³ (3) as compared to the ones disclosed in this application, comprise differences that are not insubstantial;⁴ or (4) are not structural equivalents of the corresponding elements disclosed in Applicants' specification.⁵ As such, Applicants respectfully submit that new Claims 14-16 should be allowed over Yokogawa and Iwabuchi.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-16 is earnestly solicited.

² A showing that "the prior art element performs the identical function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 54 USPQ2d 1308 (Fed. Cir. 2000).

³ A showing that "a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed. Cir. 1999); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus. Inc.*, 145 F.3d 1303, 1309, 46 USPQ2d 1752, 1757 (Fed. Cir. 1998); *Lockheed Aircraft Corp. v. United States*, 193 USPQ 449, 461 (Ct. Cl. 1977); and *Data Line Corp. v. Micro Technologies, Inc.*, 813 F.2d 1196, 1 USPQ2d 2052 (Fed. Cir. 1987).

⁴ A showing that "there are insubstantial differences between the prior art element and the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1436, 54 USPQ2d 1129, 1138 (Fed. Cir. 2000); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 117 S. Ct. 1040, 41 USPQ2d 1865, 1875 (1997); *Valmont Industries, Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 25 USPQ2d 1451 (Fed. Cir. 1993); and *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000).

⁵ A showing that "the prior art element is a structural equivalent of the corresponding element disclosed in the specification" would be sufficient to support a conclusion that elements in the cited reference would be equivalents to the recited elements. See, for example, MPEP § 2183, citing *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

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Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representatives at the below listed telephone number.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to FIGS. 1, 2 and 6 (labeled them with the legend "Prior Art"). These sheets, which include FIGS. 1, 2, 6 and 7, replace the original sheets including FIGS. 1, 2, 6 and 7.

Attachment: Replacement Sheets (2)